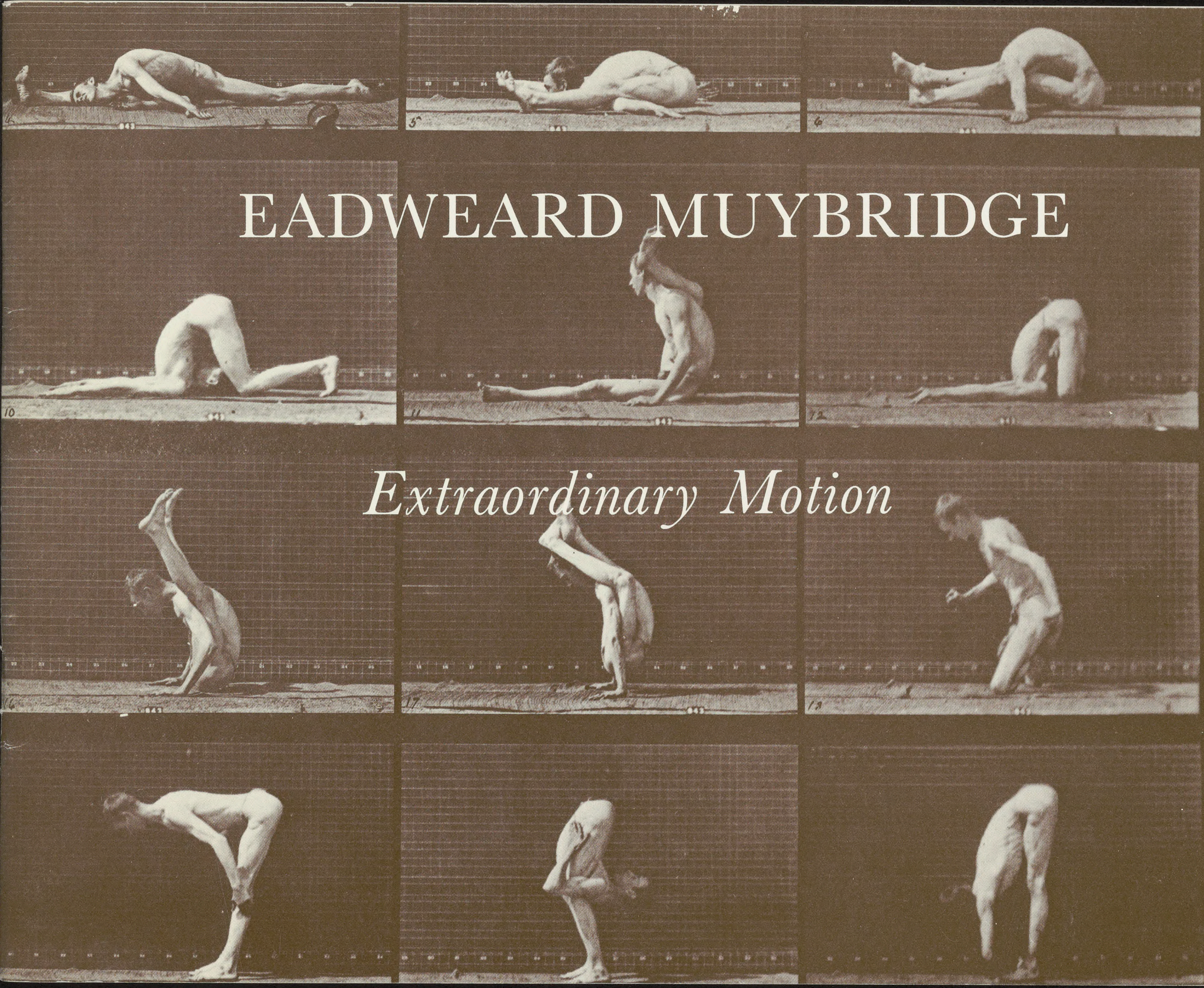
EADWEARD MUYBRIDGE

Extraordinary Motion



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Edward J. Nygren
Frances Fralin

The Corcoran Gallery of Art
Washington, D.C.
1986

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July 12–October 12, 1986

The Corcoran Gallery of Art
17th Street & New York Avenue, N.W.
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cover: *Plate 510 Contortions on the ground*

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MUYBRIDGE AND THE CORCORAN

by Frances Fralin

The minutes of the board meeting of the Trustees of the Corcoran Gallery of Art on October 10, 1887 reveal that "On motion, the purchase of the *Illustrations of Animal Locomotion* in eleven volumes by Eadweard Muybridge, was ordered (price $600)." It had been an uphill battle for the persistent Mr. Muybridge, whose initial prospectus soliciting a subscription to a series of 100 photographs illustrating *The Attitudes of Man, the Horse, and other Animals in Motion,* to be published under the auspices of the University of Pennsylvania, had twice been rejected by the Trustee Committee on Works of Art. On April 2, 1883 and again on March 17, 1884 the Committee declined to subscribe to the pre-publication solicitation.

Eadweard Muybridge himself made a presentation at the Corcoran on February 7, 1887 to the Works of Art Committee, attended by Mr. Samuel H. Kauffmann, Chairman, and Corcoran Curator William MacLeod. The following sequence of excerpts from original correspondence in the Corcoran archives is all that is now known of the Muybridge-Corcoran transaction:

May 7, 1887 letter from Muybridge to Kauffmann:

> There has been sent by Express this day, to the Corcoran Gallery of Art, 2 Cases, containing one complete series of plates in Animal Locomotion, bound in 11 Volumes. I had these bound especially for convenience of reference; from which the subscribers will choose the serial numbers of their plates. I have very few subscribers in Washington, and I think you were kind enough to give me permission to invite them to the Corcoran Gallery and afford them the opportunity of making the selection there. Will you be good enough to let me know when it will be agreeable for me to notify them of your courtesy.

May 16 letter from Muybridge to MacLeod:

> I hope you like the complete series of plates in animal locomotion, as well as you did the few specimens I had the pleasure of showing you.
>
> If you will kindly facilitate the examination of the work by the few subscribers I have in Washington and Baltimore, for the purpose of enabling

> them to make a selection of the plates they require, I shall feel very much obliged, and hope to thank you personally, in the Fall for your courtesy.

May 17 letter from MacLeod to Muybridge:

> I have yours of yesterday with the copies of the Catalogue, and must express my great admiration of the numerous plates, which so fully illustrate "Animal Locomotion" to an extent that surprises me. They contain an inexhaustible mine of artistic help as well as curious views of the infinite attitude of which animals are capable.
>
> I will take pleasure in affording to those of your subscribers who call, every facility for [illegible] association of them.

June 2 letter from Muybridge to Kauffmann:

> If you approve of the binding of the copy of Animal Locomotion now in the Corcoran Gallery, I have decided to ask your acceptance of it, as in Art Institutions of the importance of yours, I shall much prefer to see all complete copies of the work kept together, which would not be likely if the plates were in portfolios. By this arrangement you merely pay for the plates while I donate the binding.

According to the minutes of the June 20 meeting of the Committee on Works of Art:

> The Chairman [Mr.Kauffmann] read a letter to him from Mr. Muybridge offering to pay for the binding of a full set of his work, if the Gallery will pay for the plates—thus bringing its cost down to one half of its full price. Mr. Kauffmann will enclose the letter to Dr. Welling [President of the Board of Trustees] who is about to sale [sic] for Europe.

July 2 letter from Kauffmann to Muybridge:

> I was absent from the city when your letter of the second of June reached here, and on my return, about the 20th, I learned to my surprise and regret that at the meeting of the Board of Trustees held while I was gone, the purchase of a full set of the plates representing animal locomotion was declined, leaving with the Committee on Works of Art the privilege of selecting any one-hundred plates they thought best. Of course this action was had in ignorance of your letter to me, which remained unopened till my return.
>
> I at once addressed a letter to the President of the Board, saying that I thought that body had made a mistake in its action, and adding that, so far as I was personally concerned, I should not feel able to make a selection of one hundred plates that I would regard as better than any others. I expressed the hope, also, that the Board would, at its next meeting, avail itself of your very generous offer in regard to the bound volumes. In this view President Welling agreed, and advised that we withhold all action under the resolution of the Board at its last meeting, and bring the matter up for reconsideration at the first meeting to be held, which will be in October.

> I have no doubt that, after a full consideration of all the facts, the Board will conclude to take the full set; but I deem it proper to advise you of all the facts in the case, in order that you may either direct the volumes to be returned to you, or remain here until after action has been had, as you may prefer.

Mr. Kauffmann was President of the Evening Star Newspaper Company, which published the Washington *Evening Star;* he was a noted Washington patron of the arts, civic activist, and, as stated in his obituary in 1906 in the *Evening Star* (he had been President of the Corcoran Board of Trustees since 1894), "He was regarded as probably the highest authority on equestrian statues in America and at the time his health failed was contemplating writing a work on equestrian statues of the world, for which he had collected much material." This may shed some light on his keen interest in the locomotion series.

The 1887 announcement for the final publication of *Animal Locomotion, An Electro-photographic Investigation of Consecutive Phases of Animal Movements* describes the project as

> SEVEN HUNDRED AND EIGHTY-ONE PLATES, containing more than 20,000 figures of Men, Women, and Children, Animals and Birds, all actively engaged in walking, galloping, flying, working, jumping, fighting, dancing, playing at base-ball, cricket, and other athletic games, or other actions incidental to every-day life, which illustrate motion of the play of muscles.
>
> Printed by the photo-gelatine process on heavy plate paper; size, 19 by 24 inches. Average area of printed surface, 108 square inches. Average number of figures on each plate, 26, illustrating successive phases of a single action, photographed consecutively from one point of view; or, consecutively AND synchronously from two, or from three points of view.
>
> A copy of the work consists of ONE HUNDRED SELECTED PLATES.
>
> Price, ONE HUNDRED DOLLARS.
>
> Supplied exclusively to subscribers.
>
> Additional plates—beyond the 100 subscribed for—can be obtained by subscribers at the same proportionate rate as the subscription plates.
>
> In a full Russia portfolio.

The announcement continued to explain how one could select, pay for, and receive the work; it classified the subjects and enumerated hundreds of subscribers under the headings: Conservators of Works of Art, Literati, and Art Connoisseurs; Architects, Designers, Etchers, Painters, and Sculptors; Art Manufacturers, Lithographers, and Publishers; Scientists; Departments of the U.S. Government; Institutions of Art and of Art Training (including the Corcoran Gallery of Art); Institutions of Science; Libraries and Institutions of Learning; Clubs and Social Institutions.

No known records clarify the mystery surrounding the fact that the Corcoran presently possesses an almost complete set of the 781 plates; ninety-three are not represented and there are a number of duplicate plates. Perhaps in the open presentation to potential subscribers prints became mixed. The acquisition was entered into the Corcoran Library Register but never accessioned as works of art. Presumably the plates were used by the Corcoran School of Art students, since this was one of the intended purposes of the acquisition.

In addition to "the artistic help" the series would afford the Corcoran School of Art students, the photographs related to the Corcoran collection in other ways. Muybridge was closely associated with and an important influence on the celebrated American painters Albert Bierstadt and Thomas Eakins, and the sculptor Frederic Remington, whose works are centerpieces of the Corcoran collection. One understands these relationships, other less direct ones, and Muybridge's unique appropriateness to the Corcoran (established by William Wilson Corcoran in 1867 to promote the American genius) when his entire illustrious career is considered.

Muybridge was an eccentric, brilliant, enigmatic, self-promotional, obsessed character who would have a profound influence on both science and art. Initially a landscape photographer, he had a pronounced influence on American painters and photographers of the West. The beauty and grandeur of his photographs have never been surpassed in the medium. Not only was he the first to photograph fast motion in an era when both scientists and artists were increasingly eager to graphically represent motion too fast for the human eye to see, but he also produced a comprehensive and unsurpassed visual dictionary of animals and humans in motion which was heralded and utilized worldwide. The camera was a little over three decades old when in 1872 Muybridge transfixed on paper the image of a galloping horse. He proved once and for all that all four of a running horse's hooves leave the ground at once, but not in the "hobby horse" fashion popularly depicted in art.

Eadweard Muybridge was born Edward James Muggeridge in Kingston-upon-Thames, England, in 1830, the son of a corn and coal dealer. He sailed to the United States around 1852, eventually settling in San Francisco as a book dealer, selling newly established households entire libraries. By this time his first name was changed to Eadweard, after two 10th-century Saxon kings whose names were engraved on a coronation stone in Kingston. He was successful and highly regarded in the community. On a bookbuying trip to England, a stagecoach accident in Texas radically changed his life. Thrown from the overturned coach headlong onto a rock, Muybridge lay unconscious in a hospital for several days. After recovering sufficiently, he continued his journey to England where he was treated by a doctor who urged rest and increasingly active outdoor exercise. He remained in Europe seven years and returned to California an accomplished photographer (outdoor photography probably provided therapy), spelling his last name as we now know it, assuming the professional name "Helios" and the mien and attire of "photographic artist."

Muybridge soon acquired a reputation as one of the foremost landscape and general view photographers on the Pacific Coast. Most of his early photographs were small stereoscopic views. During 1867 he studied photography with Carleton E. Watkins and made an expedition to the Yosemite Valley, where his first important larger format series was made. These views were offered to subscribers in portfolio. For five years he systematically photographed the West. The series that ensued were catalogued by Bradley & Rulofson, a San Francisco photographic gallery that for a time distributed his work, and included views of San Francisco, lighthouses of the Pacific Coast and military posts and harbors in the newly acquired Alaskan Territories for the U.S. Government, and the Modoc Indian War for Bradley & Rulofson. In May 1872 Muybridge returned to Yosemite carrying equipment for producing 20 x 24 inch negatives, boasting of lens and equipment superior to any other in the United States.

Leland Stanford, President of the Central Pacific Railroad and Pacific Mail Steamship Co., former California governor, patron of the arts, and prominent horse breeder, saw several photographs made from these mammoth-size negatives and invited Muybridge to photograph his horse Occident, then reputedly the fastest trotter in the world, at full speed at his stables in Palo Alto. Even the self-assured photographer was surprised at this bold proposition and was not sure such a feat was possible. The outcome was far from distinct, but definitely a shadowy image on paper and set the stage for Muybridge's major accomplishment. Over the years Muybridge would experiment with and push processing chemicals to new levels of efficiency, and in the early 1880s turn from the difficult and slow wet-collodion method for making negatives to adopt the recently developed dry gelatin process.

Meanwhile, Muybridge's personal life was in a shambles. In 1871 he had married Flora Shallcross Stone, his photographic retouching assistant nineteen years his junior. While the photographer was away on extended assignments, in particular the Modoc War, Flora was seeing their mutual friend, a shady character named Major Harry Larkyns, and on April 15, 1874, she gave birth to Larkyns' son. When Muybridge discovered little Florido Helios Muybridge's true parentage, he pursued Larkyns to the Yellow Jacket Mine in Napa County and killed him with one carefully aimed point-blank pistol shot. In February 1875 his trial for murder ended in acquittal on the grounds of justifiable homicide. Flora Muybridge died the following July and the child was placed in an orphanage.

Within a month of his acquittal Muybridge sailed to Central America for the Pacific Mail Steamship Co. to document the cultivation of a new money crop, coffee. These photographs were well received by wealthy Guatemalans, as well as in San Francisco on his return. He retrieved his local preeminence by photo-

graphing that city from the top of its tallest building on its highest point in a twenty-seven foot long 360° panorama.

Spurred by a treatise by Etienne-Jules Marey, a professor of natural history at the College de France who was devoting himself to the study of animal locomotion, Muybridge and Stanford resumed their collaboration on the motion studies of Stanford's race horses at Palo Alto. By now Muybridge claimed he could take photographs in the 1/1000 part of a second. His first published image had to be projected onto a canvas and painted in but was considered a success. In early June 1878 he made his first successful serial photographs of fast motion with the use of up to twenty-four cameras, the shutters electrically activated, to photograph the horse from different angles. He went on to capture on film other animals and male athletes in motion. The results of these photo investigations were published by Muybridge in *The Attitudes of Animals in Motion* (1881) and heralded in the leading photographic and scientific journals in the United States and Europe. Thus the stage setting for the far more sophisticated and extensive investigation Muybridge would conduct at the University of Pennsylvania several years later was enhanced.

In the fall of 1879 Muybridge produced the zoopraxiscope, an invention which projected his photographs, mounted on circular glass disks, onto a screen, thereby providing audiences real motion on a screen for the first time. He immediately initiated a lecture series utilizing his revolutionary projection apparatus, eventually touring Europe in an effort to secure financial backing for further investigations. In Paris his initial demonstration was in the home of Professor Marey. Among the eminent guests sat the aeronaut and photographer Nadar who had previously attempted fast motion photography. The noted academic realist painter Jean-Louis-Ernest Messonier gave a reception for Muybridge with celebrated artists in attendance. But it was in England where he was, if possible, even more lionized. His first two showings were at the Royal Institution and the Royal Academy, where the royal family was among the august audience. His lectures followed the same pattern. He would show slides of individual photographs compared to slides of animals in art throughout its history, contrasting the conventional artistic attitudes of animals in motion to motion illustrated by instantaneous photography. He described his method for taking the photographs and demonstrated their smooth synthesis when projected by zoopraxiscopy. Audiences were awed when the ungainly attitudes in stop-action pictures proved an integral part of graceful motion.

Muybridge's European triumph and hope for financial backing came to a rude halt when on April 20, 1882 the London journal *Nature* announced Leland Stanford's publication of *The Horse in Motion* by J. D. B. Stillman, M.D., which failed to give Muybridge proper credit, although the study was based on his work. His credibility was lost and his trip cut short.

During 1882 and 1883 Muybridge solicited sponsorship in the eastern United States. With no success in sight, in March 1883 he issued a prospectus for *The Attitudes of Man, The Horse and Other Animals in Motion,* the same solicitation mentioned earlier which received negative response from the Corcoran Gallery of Art.

It was in Philadelphia, a center of wealth, culture, and learning, that Muybridge finally found a sponsor. This was largely due to two men, Fairman Rogers, head of the Pennsylvania Academy of the Fine Arts, and Thomas Eakins, who taught drawing and painting there. Both men were sportsmen and photographers; both had enthusiastically followed and encouraged the Palo Alto experiments. Eakins was particularly interested in understanding the anatomy and musculature of the human body. Rogers called Muybridge's proposal to the attention of University of Pennsylvania Provost Dr. William Pepper, who saw the research as a proper extension of the university's function. In March 1884 a commission, including Dr. Pepper, six university professors of science, and two members of the Pennsylvania Academy of the Fine Arts (one being Eakins), was formed to supervise the work.

The investigations took place primarily on the grounds of the University hospital. Completion of the project would require two years (1884-1886), added financial backing from six Philadelphians, six assistants, the exposure of 30,000 negatives, and extraordinarily concentrated exertion on Muybridge's part. Following the 1887 publication of the collotype plates and a separately printed *Prospectus and Catalogue of Plates,* Muybridge spent several years in the United States and abroad promoting subscriptions to *Animal Locomotion* in an effort to repay its guarantors. In 1893 he lectured at the World's Columbian Exposition in Chicago in his Zoopraxographical Hall on the Midway, the first motion picture theater ever built.

Muybridge returned permanently to Kingston-upon-Thames in 1894. His remaining days were made economically comfortable by his publication of popular abridged editions of the photographic investigations *Animals in Motion* and *The Human Figure in Motion* (the former went through five printings, the latter seven). He died on May 8, 1904.

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EADWEARD MUYBRIDGE

Extraordinary Motion

by Edward J. Nygren

The 781 plates in Eadweard Muybridge's monumental *Animal Locomotion,* published in 1887, contain almost 20,000 images showing humans, horses, birds, and other animals in sequential movement usually from two or more vantage points. The series was the culmination of Muybridge's career and fulfilled the promise of his photograph made fifteen years earlier that revealed the true movement of a horse. Conducted under the sponsorship of the University of Pennsylvania between 1884 and 1886, the project produced an unsurpassed pictorial record of human and animal motion.

The project and the publication involved the artistic and scientific communities. It is well known that *Animal Locomotion* changed the way in which artists depicted movement. As a photographic rendering of action through time and space, it was a technical and aesthetic ancestor of the motion picture. Although the project's artistic significance has received the most attention, its scientific purpose—the gathering of objective information about motion—was critical to the success of the operation since it was the basis for the University's financial support. Because Muybridge had developed a method by which a battery of cameras could record accurately the way in which man and beast moved, the program provided the medical community with an opportunity to explore how differences in anatomy affect movement. It also offered the chance to compare normal and abnormal human actions. Out of the more than 500 plates devoted to humans, less than two dozen deal with abnormal movement. A handful of other plates, scattered throughout the volumes, display the extraordinary motion of people whose physical traits place them beyond the norm. This exhibition focuses on these images and those with which they are implicitly compared.

Comparison of animal and human anatomy and physiognomy had been a subject of artistic and scientific interest since the Renaissance. At the core of this interest was the concept of the Great Chain of Being, the idea that there was an unbroken line between the lowest form of life and the heavenly hosts, with man at the top of the hierarchy of earthly creatures. Physical qualities and base desires, which connect man to beasts below him on the Chain, established his animal nature; his spiritual aspects allied him to the angels above.

The eighteenth century viewed nature as corrupted by the fall of Adam and Eve. Variations on generic forms provided evidence of this corruption. The naturalist's ordering of nature to discover the Divine scheme and the artist's generalization of forms to minimize individual peculiarities were expressions of this point of view: they were ways of dealing with a corrupted nature. Deviations from the norm, therefore, were of interest only insofar as they confirmed nature's degenerate state or implied God's punishment of human transgression.

Around the turn of the century, stimulated in part by a close observation of nature, the individual and the particular assumed greater significance. Accuracy in the depiction of nature's details, whether in the portrayal of man or in the rendering of a tree, replaced the generalization characteristic of earlier artistic expression. The bizarre, the unusual, the grotesque, the unique—the individual—long eschewed in art or relegated to a minor mode appealed to the Romantic sensibility. Following the Napoleonic wars, representations in French art of crippled veterans appeared with regularity. While these symbolic images of patriotism portray normal men made abnormal by extraordinary circumstances, there were also naturalistic depictions of the unfortunate—the insane, the paralytic, the destitute. These depictions of physically different humans reflect a new psychological and aesthetic attitude toward deviant forms. Scientific interest in deviations from the norm paralleled the artistic. Studies on the subject began to be published in Europe and America in the second quarter of the century. Institutions of varying quality were established to treat and care for the unfortunates.

The invention of photography in the 1830s gave science a tool by which the particular could be reproduced by a mechanical instrument free of the human subjectivity inherent in even the most detailed drawing. Almost from its inception, photography was used to record medical problems and treatments. Dr. Francis X. Dercum, a professor of nervous diseases at the University of Pennsylvania and a person closely involved with Muybridge's program, saw the applicability of the photographer's project to his own interests. Blockley Hospital for the Poor at first refused and then agreed to allow some of its patients to be photographed, stipulating that the photography had to be done on site. Only through the efforts of Dr. Dercum, who argued that this was an unusual opportunity not to be missed, did the Hospital Committee for the Poor Guardians finally consent to patients going to the grounds behind University Hospital where the cameras were installed.[1]

Twenty-three patients were photographed; these were the only subjects labelled "abnormal" in the final publication with the exception of the plates showing an artist's model undergoing artificially induced convulsions (544-545). Like many of their normal coun-

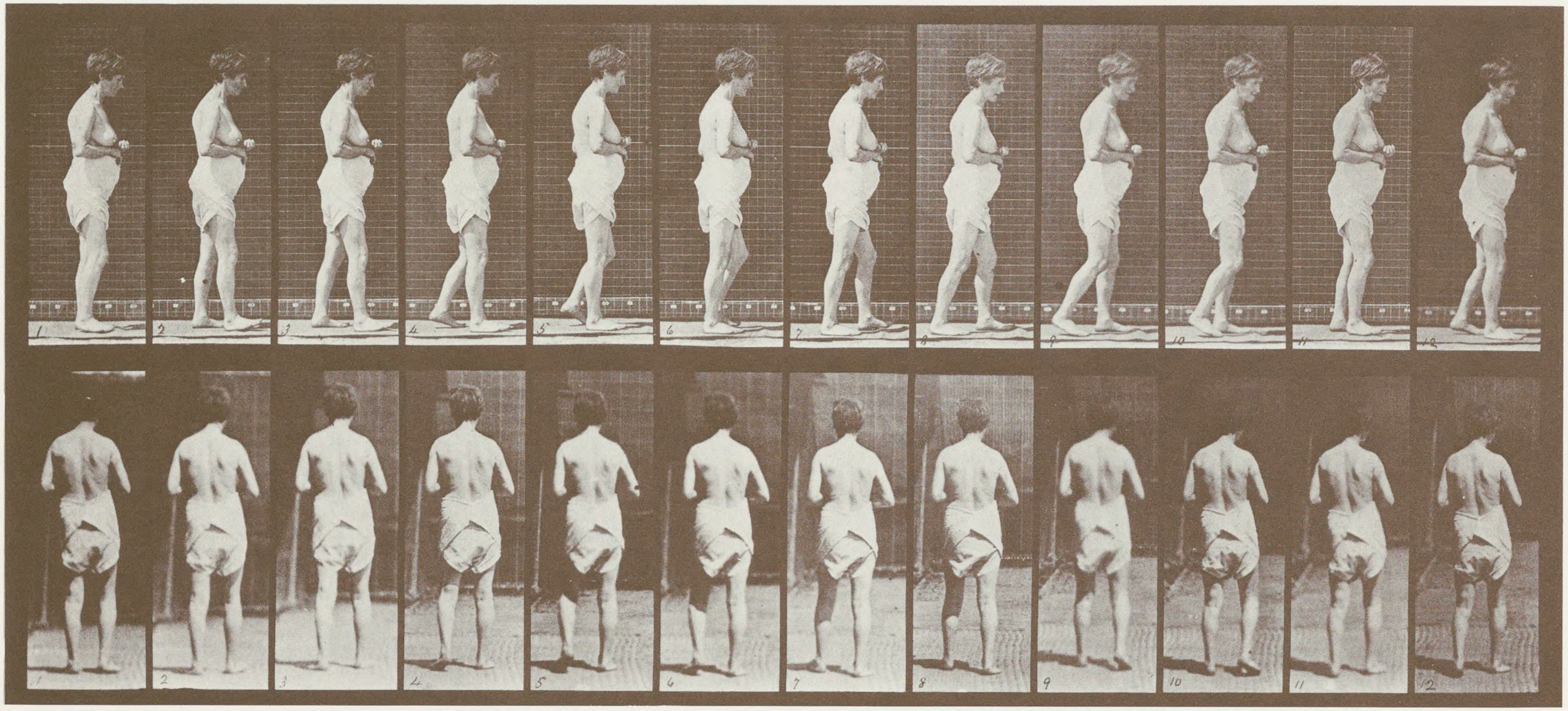

Plate 542 *Multiple cerebro-spinal sclerosis.*

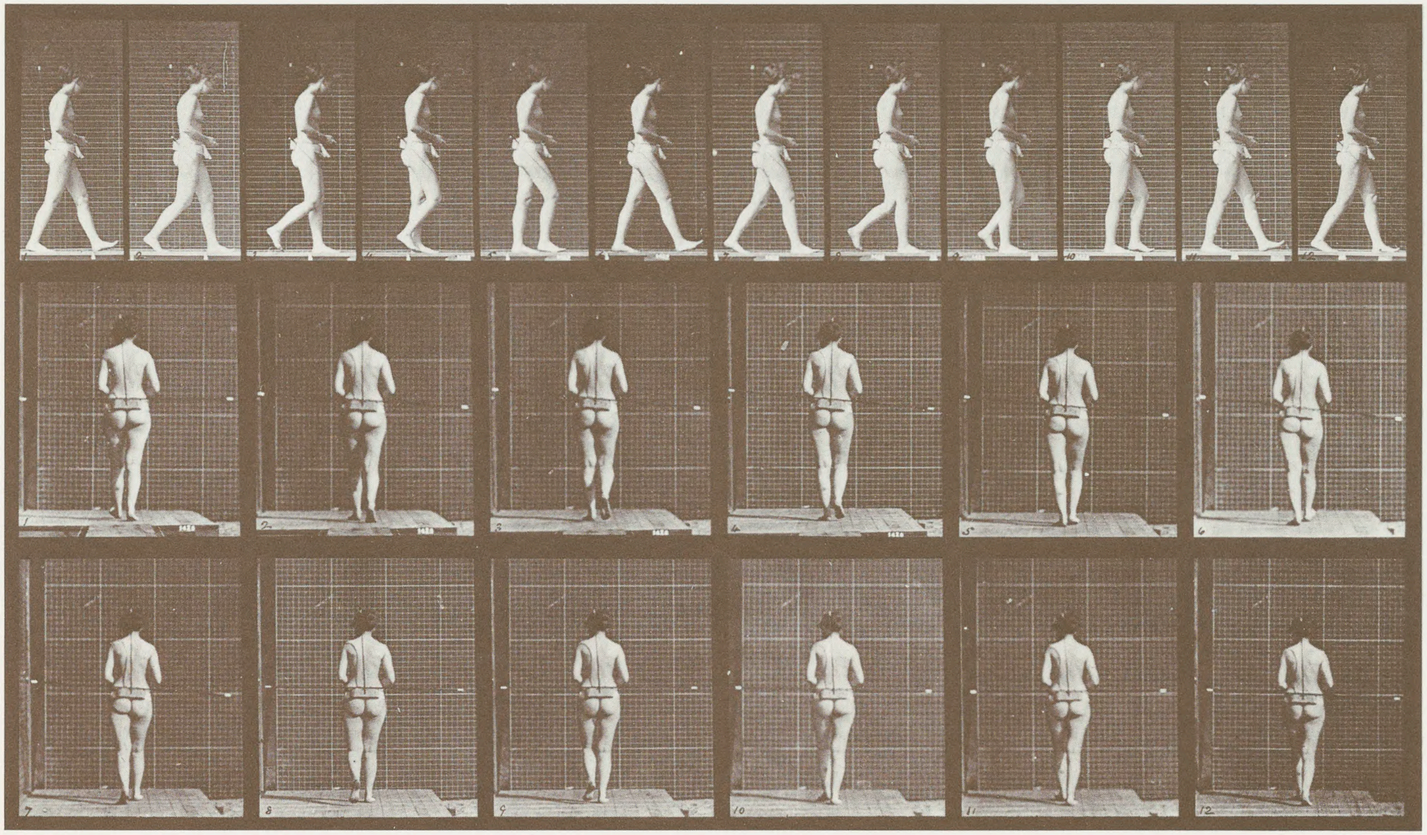

Plate 21 *Walking, both elbows bent.*

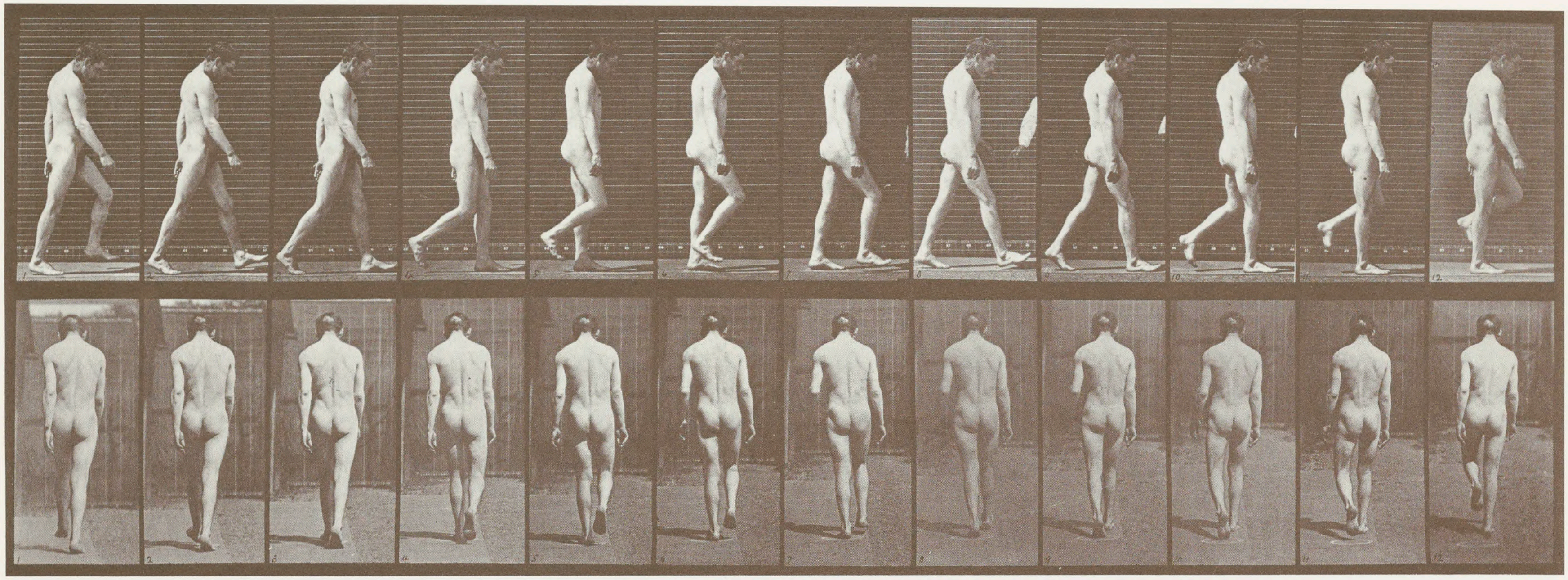

Plate 549 *Epilepsy; walking.*

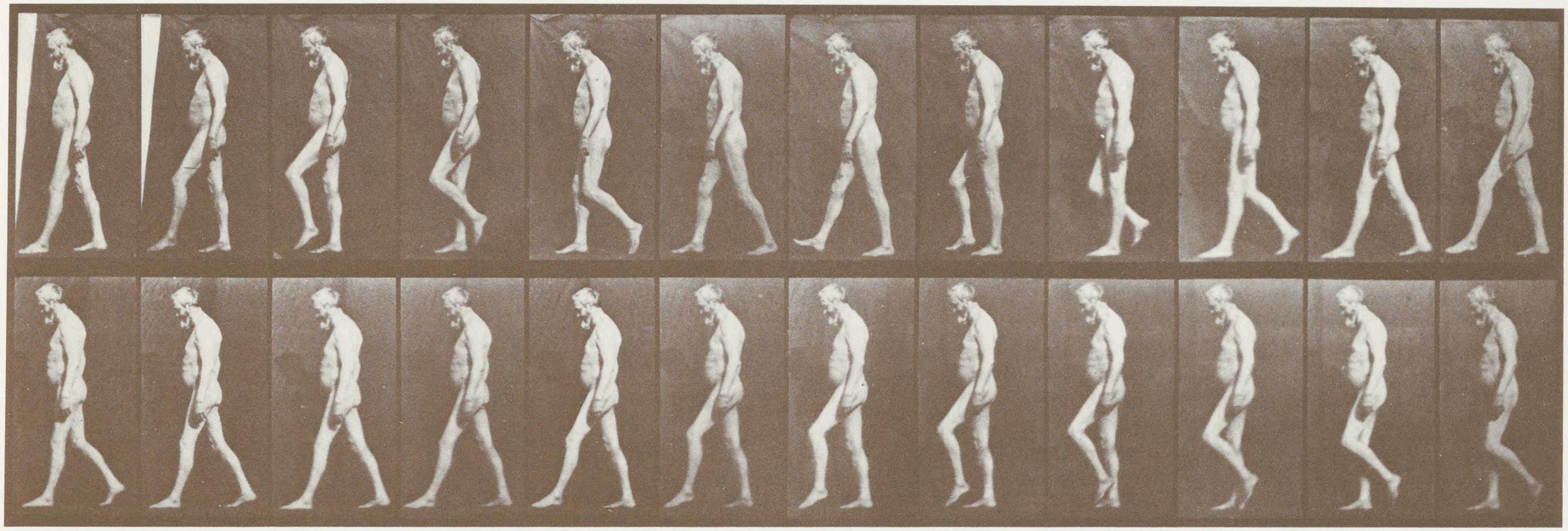

Plate 555 *Muscular atrophy of legs; adult; A,B, walking.*

terparts, the patients were photographed nude or partially draped to reveal their anatomy in motion. These studies served as the basis for an article Dr. Dercum published in *Transactions,* the journal of the College of Physicians, in 1888. Not included in the abnormal section, because they were not patients, are the contortionist (510) and the obese woman (268) although their physical abilities and limitations would place them in an "abnormal" category.

Clinical in intent, the photographs of patients from Blockley Hospital need to be viewed within the context of the other images in the project to comprehend their aesthetic nature in addition to their medical relevance. Although the movement of the spastic walking (542) appears slow and deliberate in comparison with that of a normal woman (21), to the untrained eye the variations seem relatively minor, attributable as much to differences in physical type as to the former's condition. The same could be said for the subjects of plates 1 and 546. Although the figure in plate 1 is obviously more athletic (and therefore more visually appealing) than the patient in 546, the arms and legs in both were captured in similar positions. It is even more difficult for the uninformed viewer to differentiate the physical problems and their effect on movement in 549 and 555. However, when the spines are reinforced visually as in 562, the medical information becomes readable. The perceived differences in these images are in part conditioned by the physical appearance of the subject and, of course, by the labelling.

The special motor problems of the handicapped are more apparent in the severest cases: in the images of a victim of infantile paralysis walking on hands and feet (539), in the movements of a double amputee boy (538), in the twisted walk of a spastic requiring assistance (541), in the unbalanced step of a hydrocephalic (561). Their deformities are self-evident. These images, perhaps more than any others in the series, establish the camera's claim to brutal truthfulness—an aesthetic later exploited by art and documentary photographers. Nevertheless, they also elicit emotional responses from the viewer quite distinct from those aroused by any one of a number of plates showing normal people in a variety of activities. On viewing athletic prowess (68), bizarre physical agility (510), indecorous movement (156), or artistic allusions—in this case to Salome (94)—the viewer is delighted or entertained. Beautifully formed bodies engaged in graceful movements are pleasurable to behold.

Responses to the abnormal sequences are more complex. Initially they arouse sympathy and perhaps repulsion. The viewer is affected not only by what is shown but also by his associations. He may remember comparable sequences of normal subjects in the compendium (467 and 470) or simply recall comparisons from personal experiences. And yet some of these images do more than trigger feelings of pity. In so doing, they achieve an unexpected resonance.

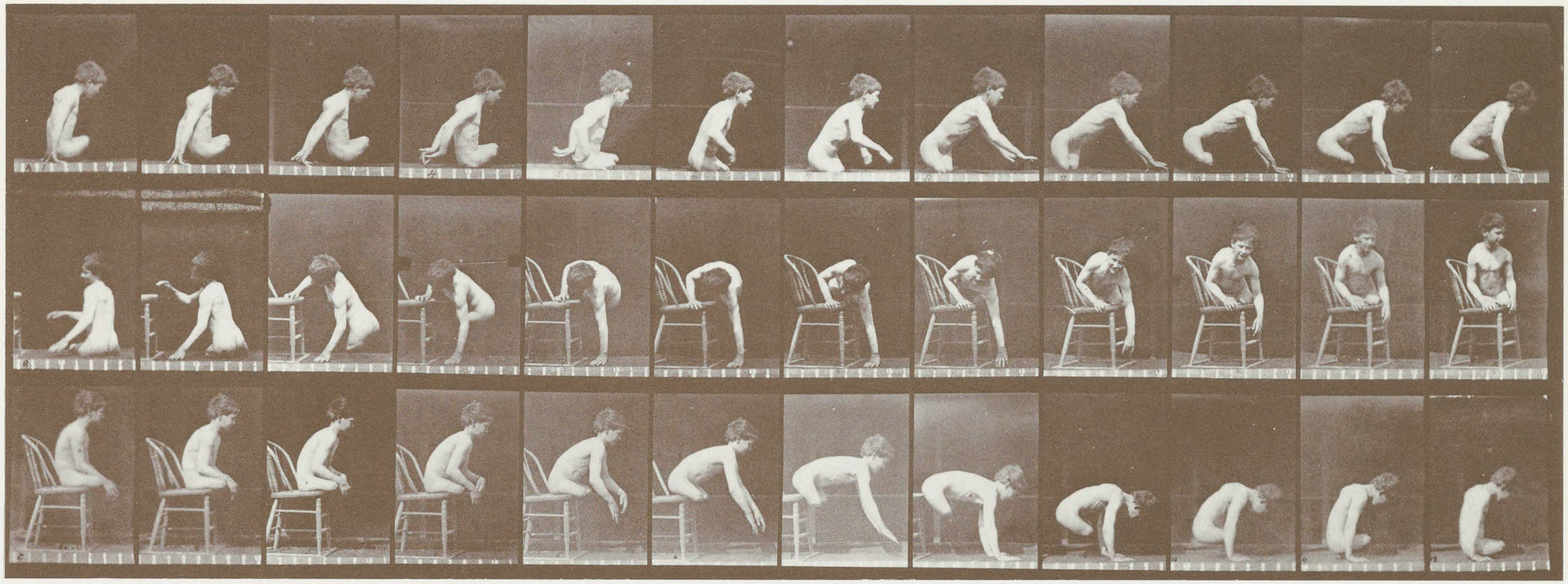

Plate 538 *Double amputation of thighs; boy A, moving forward; B, getting on chair; C, down from chair.*

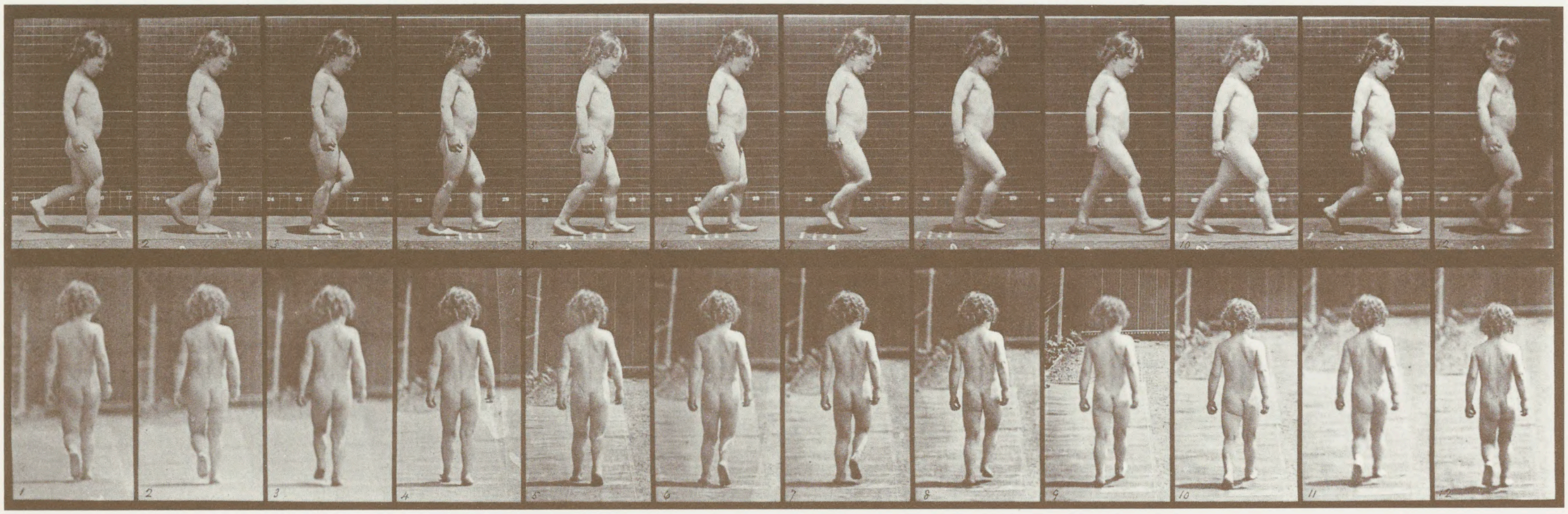

Plate 467 *Child, walking.*

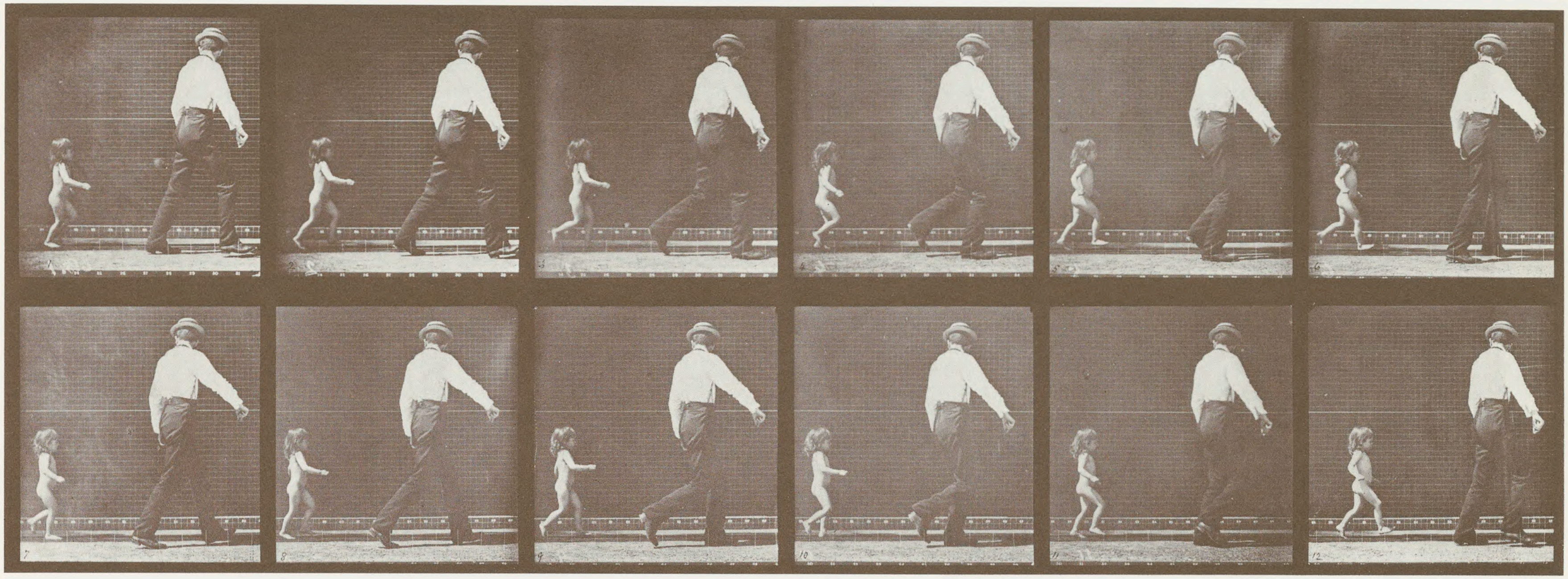

Plate 470 *Child, running after a man.*

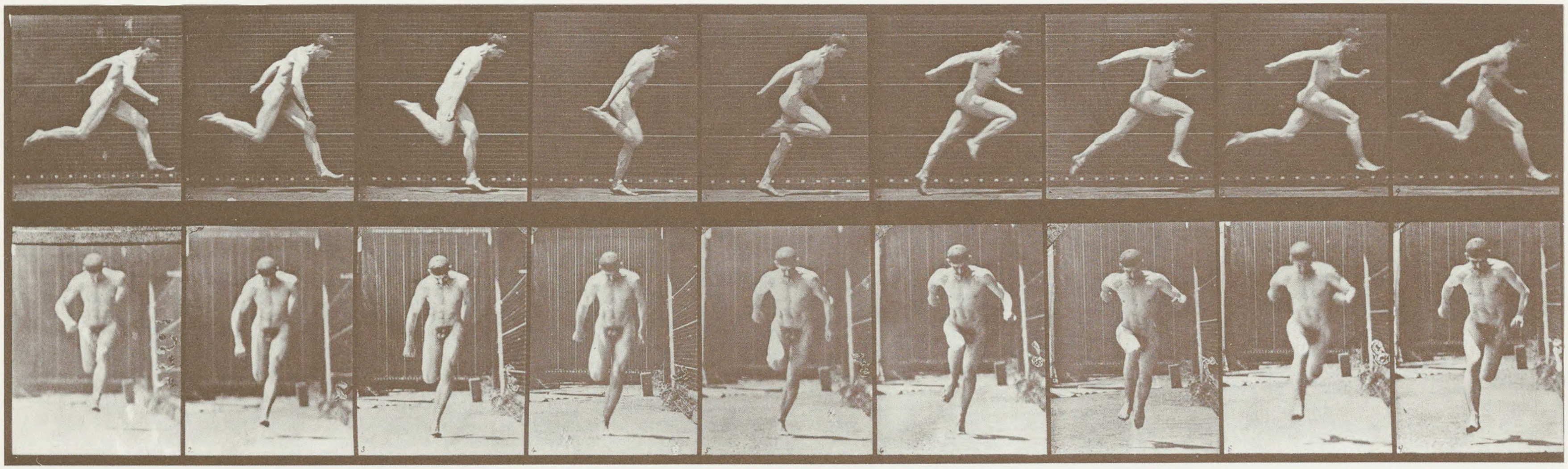

Plate 68 *Running*.

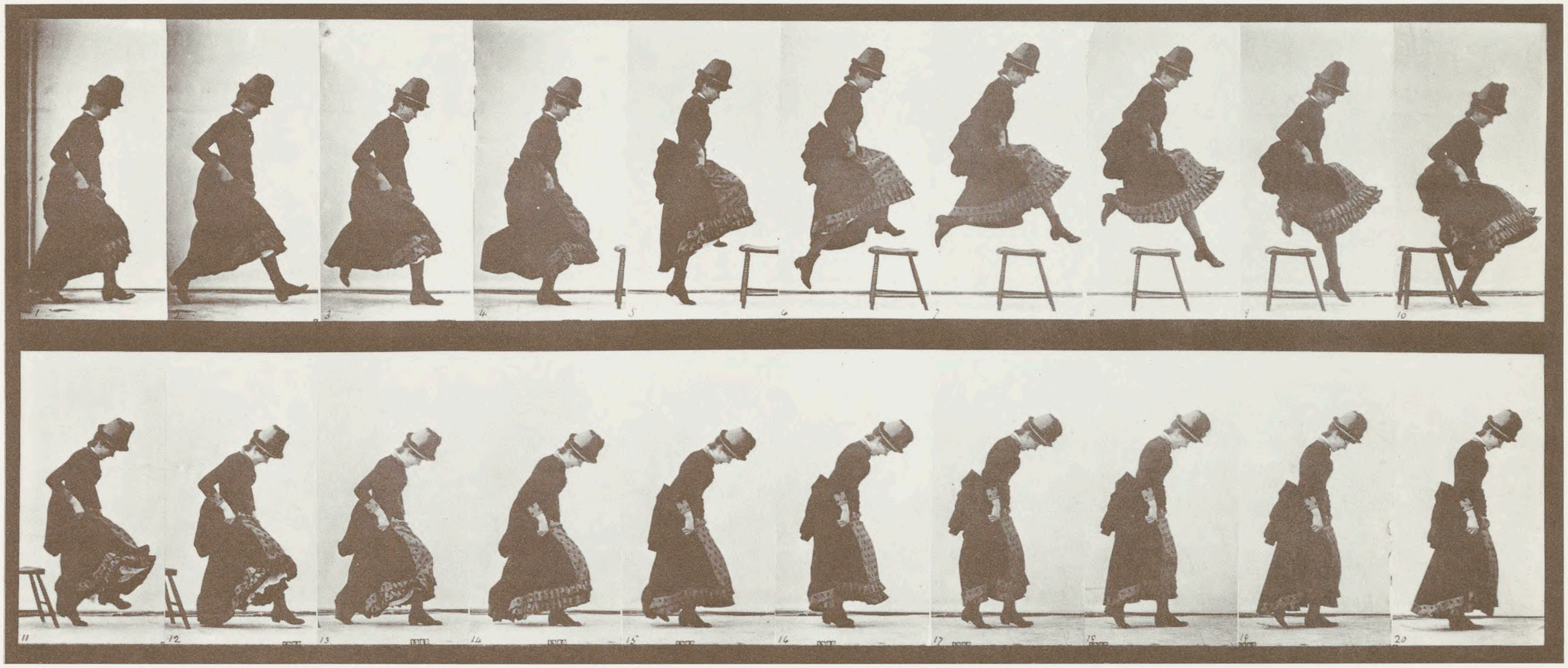

Plate 156 *Jumping; running straight high jump.*

In his book on the aesthetics of movement, first published in 1889, Paul Souriau, who knew Muybridge's work, noted:

> It is evident that the movements of an animal are determined above all by its organic structure. Each of its limbs, according to the arrangement of the bones which support and the muscles which activate it, is capable of executing only a certain range of movements. . . . But anatomy indicates only the diverse kinds of movements we can execute. Alone, it cannot explain the play of life in creatures who feel, who think, who wish, who are not merely complying to mechanical agents. . . . for the animal, mechanical factors are complicated by psychological determinants that can be just as constraining and certainly more delicate and of another order.[2]

The psychological component, while an ingredient of the entire series, is particularly evident in the plates dealing with abnormal movement.

Souriau differentiates between the expression of motion and the impression of motion, between the emotion of the subject and the reaction of the observer. In *Animal Locomotion*, the impression of motion is conveyed through the serialization of images. The expression of motion is a projection of the subject's response; it involves, as Souriau points out, our imagining a person's feelings in relation to our own.[3] In the plate depicting a hand beating time (535), the impression of movement is the serial's primary subject; the hand is divorced from a body or face that could provide insight into the motion's expression. In the plate showing a child running after a man (470), our association with the man establishes the empathy with the child's movement. The runner and jumper in 68 and 163 project a sense of determination and effort as they perform vigorous activities with which we can relate. Such pleasurable expressions of movement produce pleasurable impressions on the viewer.

The plates dealing with the child stricken by infantile paralysis (539) and the double amputee (538) also contain expressions of movement, as do those depicting the spastic and hydrocephalic (541 and 561). In the last two, the rigid angularity of limbs, the hovering figures, the blank or hidden face produce an awkward, painful expression. The lack of grace as well as the compositional instability create anxiety.

No anxiety is present in the first two plates despite their pathetic subjects. In fact, the expression of movement in these images is surprisingly pleasurable. How do images of a child suffering from infantile paralysis and of a double amputee overcome the initial pity they arouse in the viewer? In both, the subjects acknowledge the presence of the camera by looking at it directly. The viewer is engaged by the subject and invited to share in his experience. Their faces show satisfaction with the tasks performed.

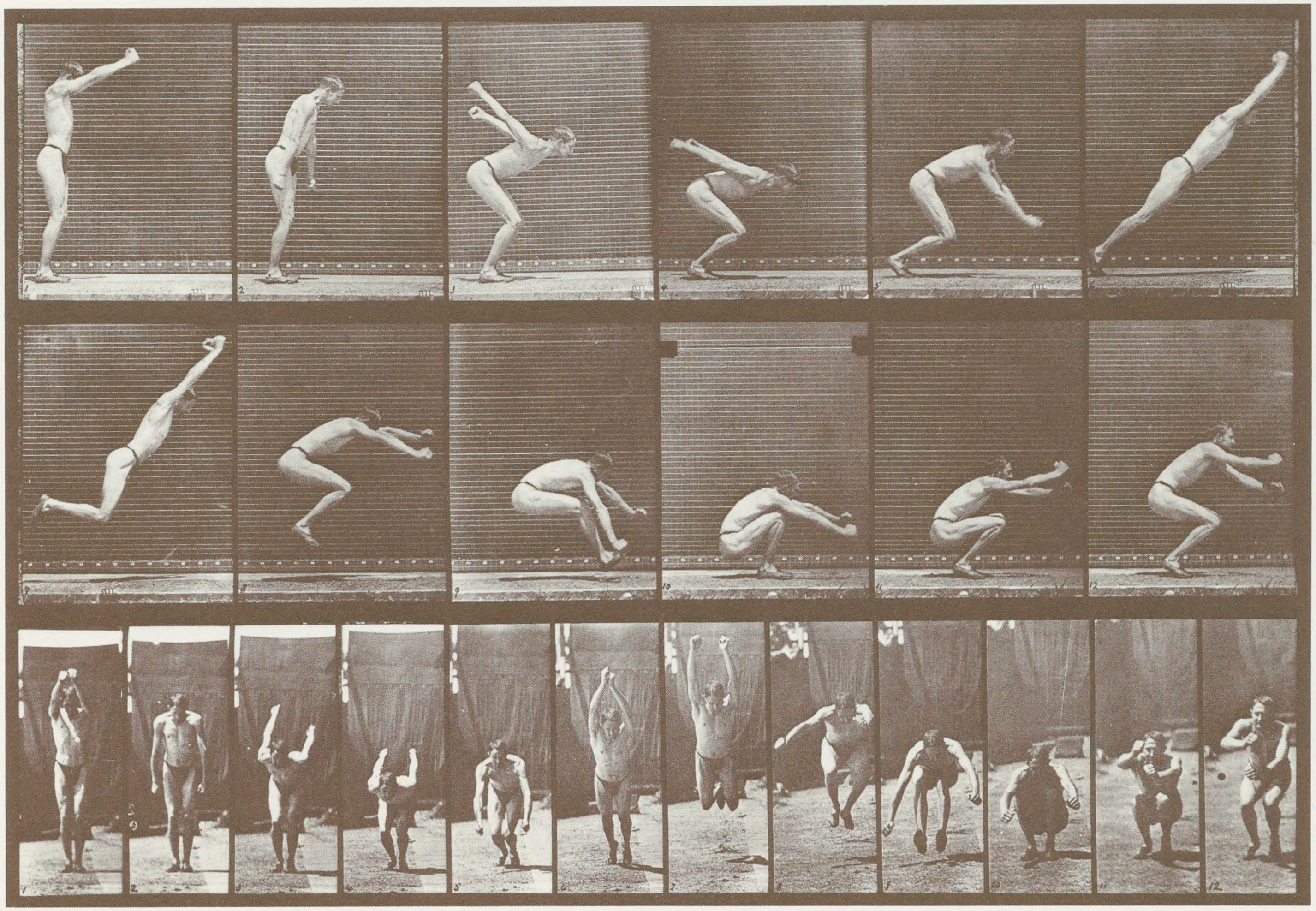

Plate 163 *Jumping; standing broad jump (shoes).*

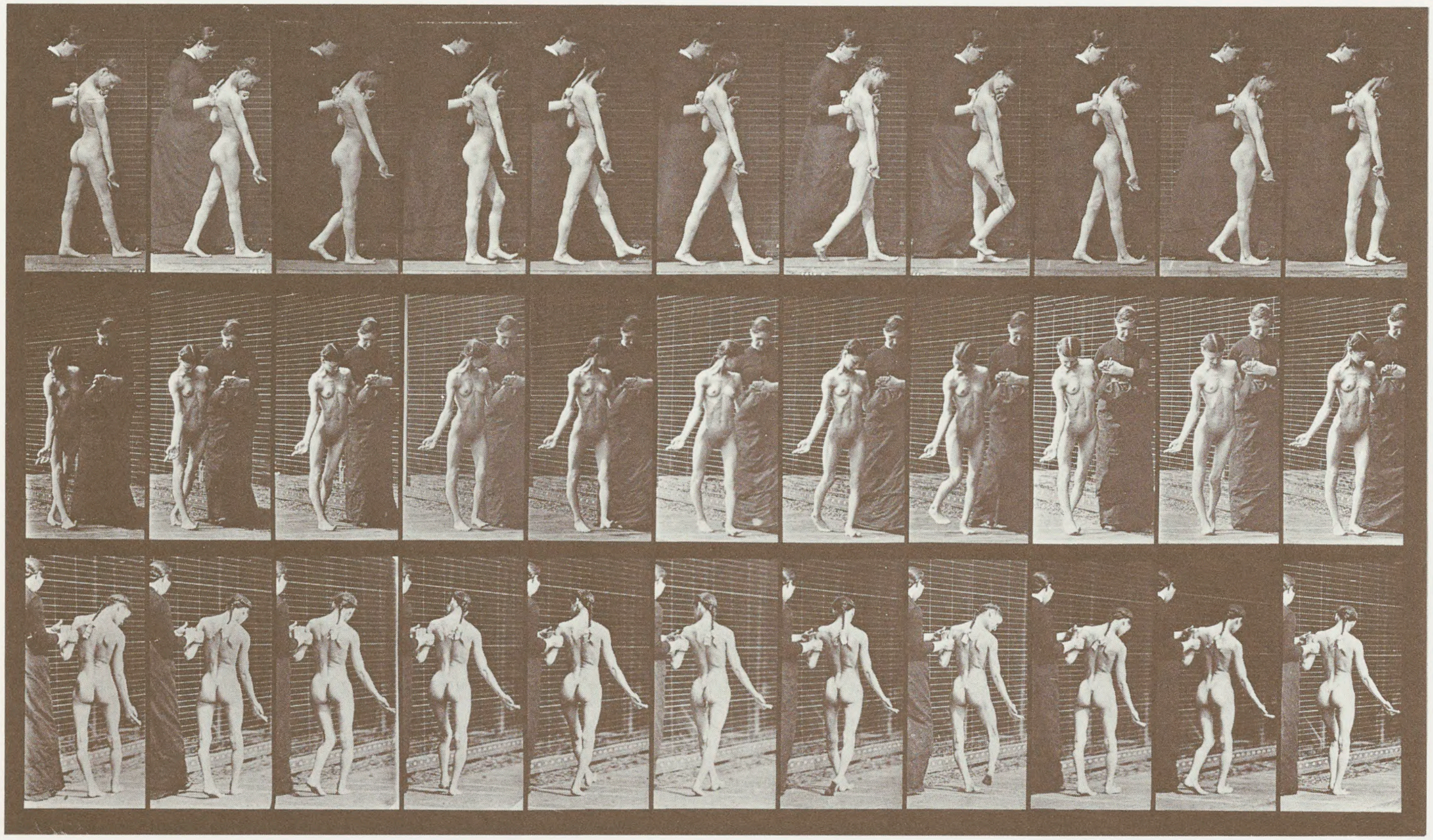

Plate 541 *Multiple cerebro-spinal sclerosis.*

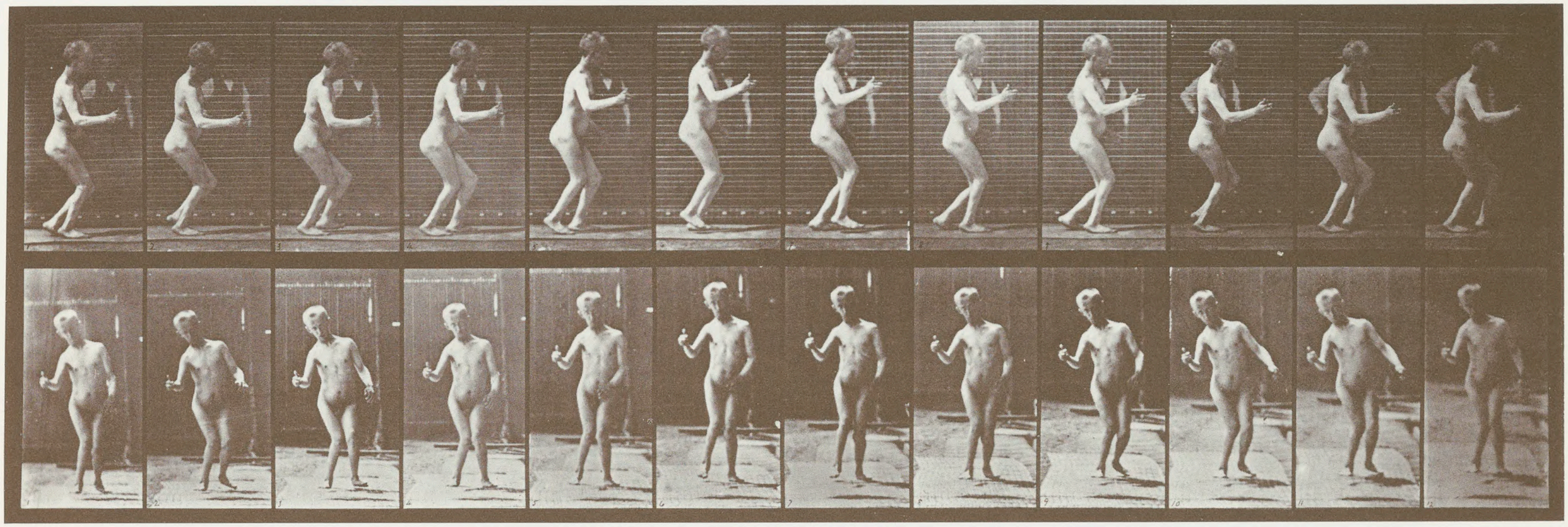

Plate 561 *Hydrocephalus; walking.*

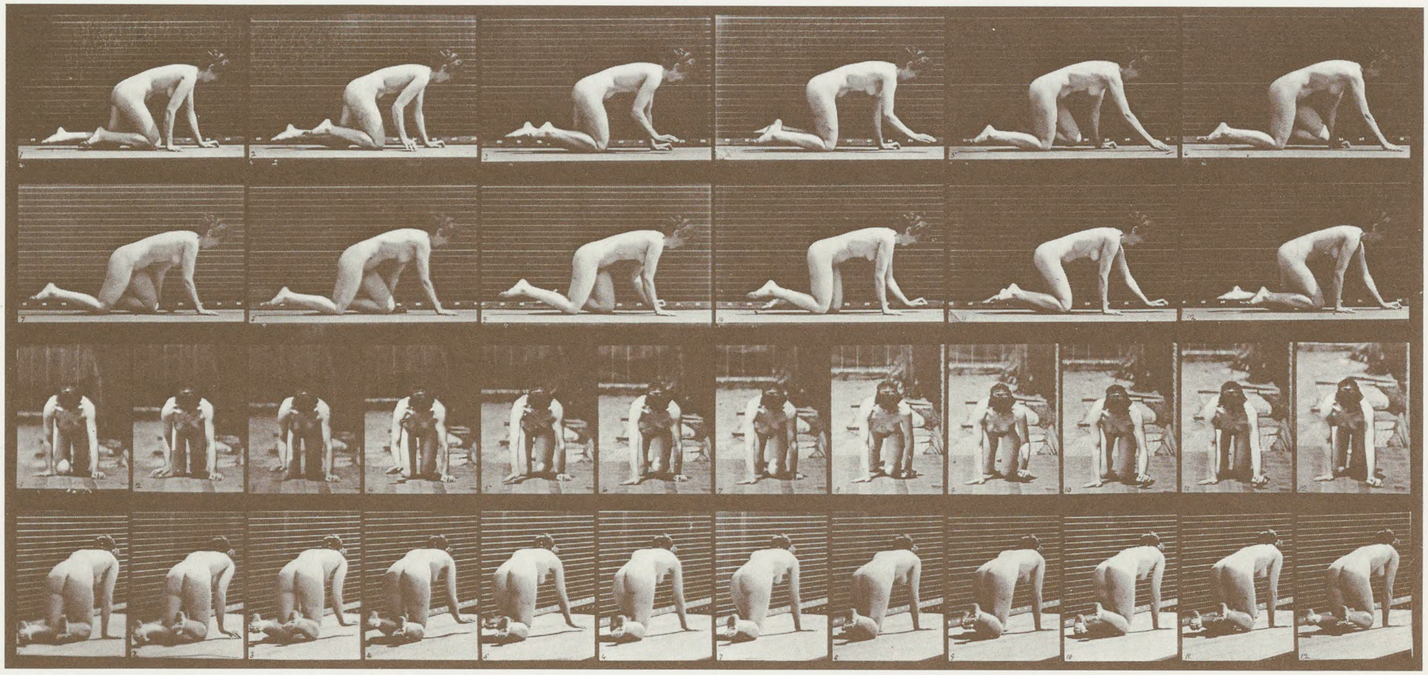

Plate 182 *Crawling on hands and knees.*

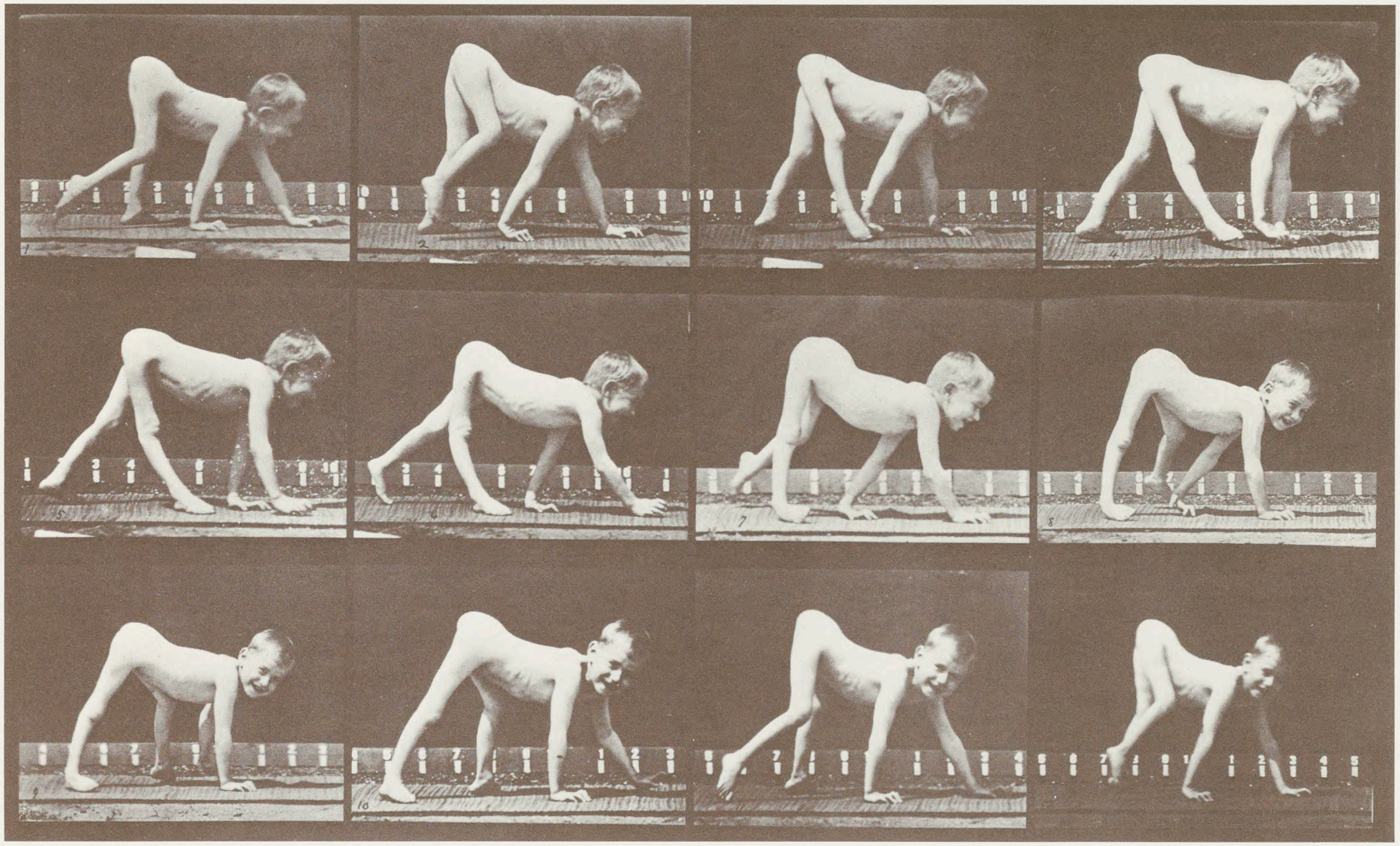

Plate 539 *Infantile paralysis; child, walking on hands and feet.*

Eye contact and explicit evidence of a positive emotional attitude affect both the expression and impression of the movement in these two plates. There are other contributing factors. In the case of the double amputee, the ease of movement, the grace of the boy as he manipulates his truncated body on and off the chair, project self-confidence and animate his activity. In the sequence of the child walking on his hands and feet, perception of the subject's grace or ease of movement is at first prevented by his deformity. And yet the crippled child's movement is so much more graceful (and appropriate) than that of the woman crawling on her hands and knees (182). The positive expression is enhanced by the single viewpoint that silhouettes the undulating movements of the handicapped but agile child, and by the large format that brings the satisfied subject close to the viewer.

With the emphasis placed on generalization in the eighteenth century, photography would have been aesthetically unthinkable even if it had been technically feasible. Particularization was an artistic anathema. It was the literalness of photography that insured its delayed and limited acceptance as an art form. In *Animal Locomotion*, the plates recording abnormal human motion—extraordinary motion, if you will—stand out as insistently individualistic and as incontestable products of Romanticism.

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[1] Dr. Dercum's role in the project is documented in Gordon Hendricks' *Eadweard Muybridge: The Father of the Motion Picture* (New York: Grossman Publishers, 1975), p. 162.

[2] Paul Souriau, *The Aesthetics of Movement*, translated and edited by Manon Souriau (Amherst, Mass.: The University of Massachusetts Press, 1983), p. 3.

[3] *Ibid.*, pp. 81, 83.

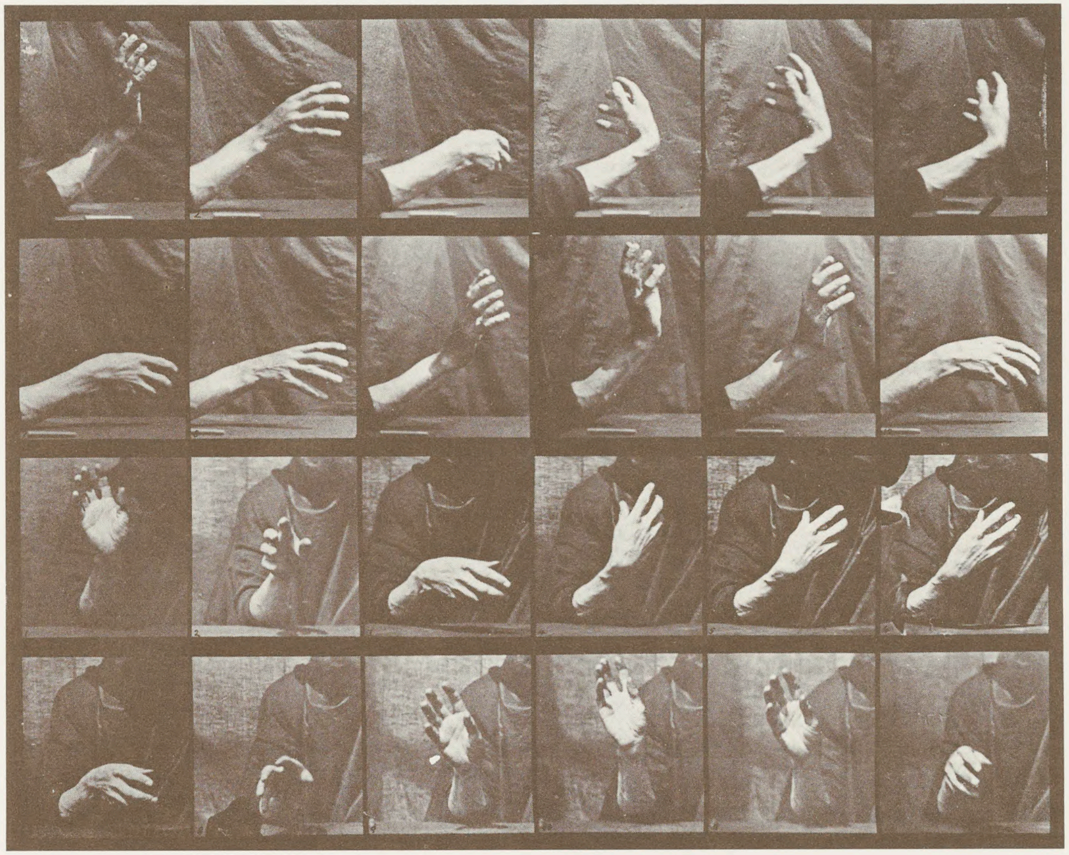


Plate 535 *Movement of the hand; beating time.*

EADWEARD MUYBRIDGE EXHIBITION

Checklist

Plate 1
Walking
7 5/16 × 15 5/8″

Plate 7
Walking
8 3/4 × 12 5/8″

Plate 8
Walking
7 13/16 × 15 1/4″

Plate 21
Walking, both elbows bent
8 9/16 × 14 1/2″

Plate 23
Walking, right hand at chin, high-heeled shoes on
7 15/16 × 14 9/16″

Plate 45
Walking, two models meeting, and partly turning
8 5/8 × 13 7/16″

Plate 54
Walking, two models (one flirting a fan),
arm in arm, turning around
7 1/4 × 15 3/4″

Plate 68
Running
5 3/8 × 17 7/8″

Plate 91
Ascending stairs
8 7/16 × 13 1/2″

Plate 94
Ascending stairs looking around; basin in hands
8 1/4 × 14 1/16″

Plate 152
Jumping; running straight high jump (shoes)
6 1/8 × 18 1/4″

Plate 156
Jumping; running straight high jump
7 5/16 × 16 13/16″

Plate 163
Jumping; standing broad jump (shoes)
9 × 12 15/16″

Plate 182
Crawling on hands and knees
7 1/2 × 15 3/4″

Plate 183
Walking on hands and feet
6 3/8 × 17 3/4″

Plate 186
Hopping on right foot
7 7/8 × 14 1/8″

Plate 266
Turning and changing position
while on the ground
6 5/16 × 17 3/4″

Plate 268
Arising from the ground
8 5/8 × 13 3/4″

Plate 269
Arising from the ground with newspaper in left hand
7 5/8 × 14 13/16″

Plate 300
Foot-ball; drop kick
13 3/16 × 8 11/16″

Plate 349
Fencing
7 × 16 3/8″

Plate 364
Hand-spring over man's back
9 5/16 × 12 5/16″

Plate 372
Acrobat, horizontal "press up"
8 5/16 × 13 7/16″

Plate 467
Child, walking
5 15/16 × 18″

Plate 469
Child, running
7 13/16 × 12 5/8″

Plate 470
Child, 70 N, running after a man
6 5/8 × 17 3/4″

Plate 510
Contortions on the ground
7 5/16 × 16 1/2″

Plate 519
A, throwing disk; B, ascending step; C, walking
9 3/8 × 12 1/8″

Plate 535
Movement of the hand; beating time
9 1/2 × 11 13/16″

Plate 536
Movement of the hand; hands changing a pencil
7 × 15 3/4″

Plate 538
Double amputation of thighs; boy;
A, moving forward; B, getting
on chair; C, down from chair
6 7/16 × 17 7/16″

Plate 539
Infantile paralysis; child,
walking on hands and feet
8 3/8 × 13 5/8″

Plate 540
A, bow-legs; B, spinal caries; girl, walking
6 3/8 × 17 13/16″

Plate 541
Multiple cerebro-spinal sclerosis
(choreic); walking
8 3/8 × 13 5/8″

Plate 542
Multiple cerebro-spinal sclerosis
(choreic); walking
7 1/4 × 15 7/8″

Plate 544
Artificially-induced convulsions;
A,B,C, while lying
13 1/16 × 8 1/4″

Plate 545
Artificially-induced convulsions;
A,B, while sitting
9 11/16 × 11 1/2″

Plate 546
Locomotor ataxia; walking
5 15/16 × 17 9/16″

Plate 548
Lateral sclerosis; A,B, walking
8¾ × 12¹¹⁄₁₆″

Plate 549
Epilepsy; walking
6½ × 17½″

Plate 550
Locomotor ataxia; walking; A, arms down;
B, arms up
8⅞ × 13¹⁵⁄₁₆″

Plate 553
After traumatism of head; walking
7⁷⁄₁₆ × 15⁷⁄₁₆″

Plate 555
Muscular atrophy of legs; adult; A,B, walking
6 × 17⁹⁄₁₆″

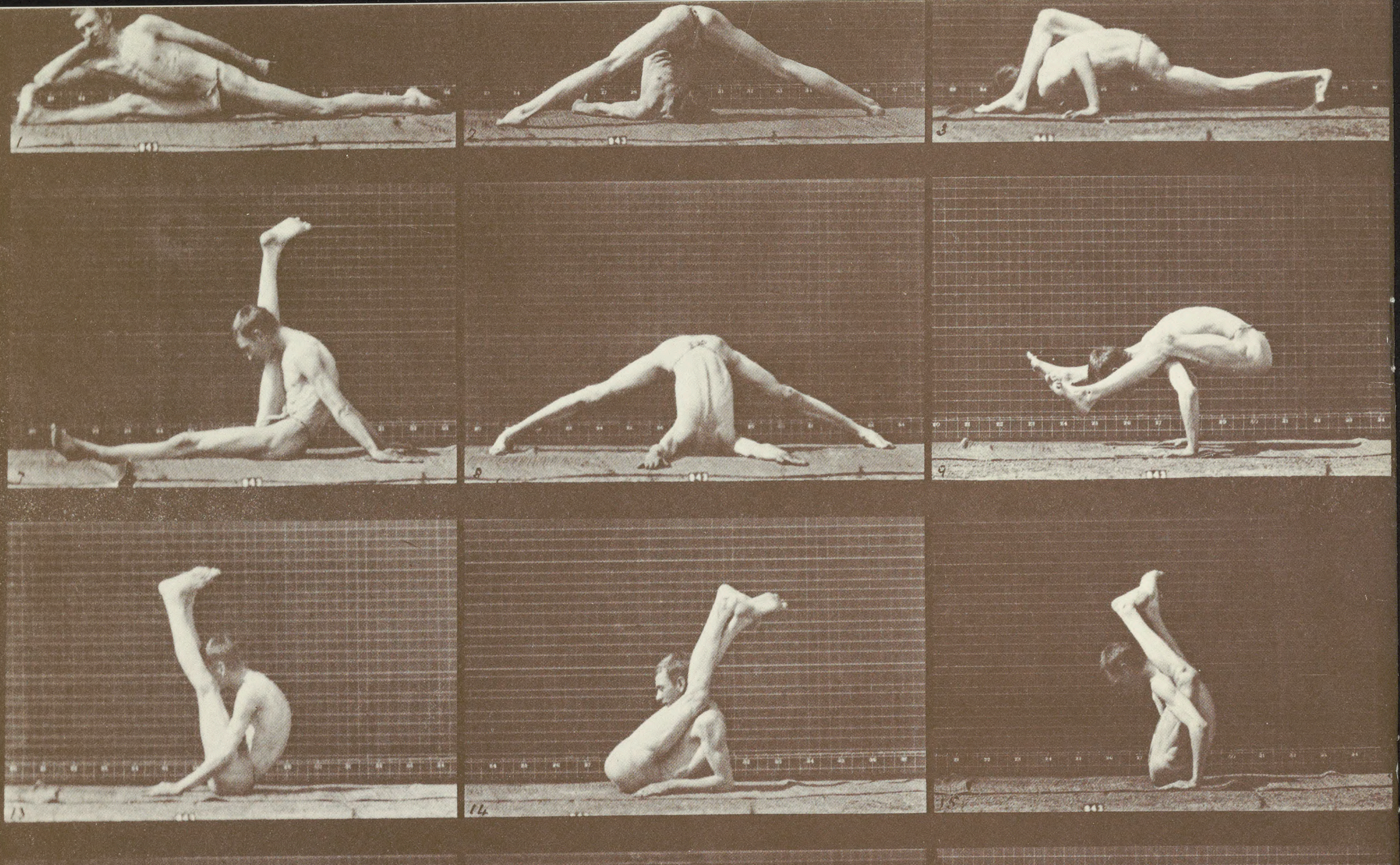
Plate 556
Local chorea; A,B, while lying
6⅝ × 17⅞″

Plate 557
Local chorea; A,B,C, while standing
7¹³⁄₁₆ × 14⅜″

Plate 559
Disseminated sclerosis; walking with cane
8¹⁵⁄₁₆ × 13¹⁄₁₆″

Plate 561
Hydrocephalus; walking
6⅛ × 18¹⁄₁₆″

Plate 562
Lateral curvature of spine; walking
6⅛ × 18⅛″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